

Application No.: 09/732,299
Amendment and Response dated November 5, 2003
Reply to Office Action of July 8, 2003
Docket No.: 669-87
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Amendments to the Specification:

Please amend the paragraph beginning at page 3 line 7, as follows:

Accordingly, in one aspect, the present invention is directed to a wastewater separator to separate waste from a mixed wastewater stream before the mixed wastewater stream is directed into a sewer system, the mixed wastewater stream including one or more of heavy waste, light waste and water. The wastewater separator comprises a separation container, a wastewater inlet to the separation container and a wastewater outlet from said separation container. The separation container comprises (1) a wastewater stream director within the separation container, the wastewater stream director being sized, shaped and positioned relative to the wastewater inlet to direct the wastewater stream along a preferred flow path to permit the light waste to separate from the wastewater stream in a first direction to a collection area and to permit the heavy waste to separate from the wastewater stream in a second direction towards a heavy waste removal area; and (2) a flow-directing outlet baffle within the separation container for directing the wastewater stream to the wastewater outlet from the heavy waste removal area to remove the heavy waste from the separation container. The wastewater stream director, flow directing outlet baffle, heavy waste removal area and preferred flow path are sized, shaped and positioned so as to prevent the heavy waste from being trapped with the light waste in the collection area, and so as to cause the heavy waste to be carried out of the separation container with said wastewater stream.

Please amend the paragraph beginning at page 9 line 3, as follows:

It will be appreciated that the wastewater stream director need not be solely in the form of the flow-directing inlet baffle 34 and the ramp 36. For example, other configurations of elements could be used to accomplish the same function, such as using the flow-directing inlet baffle 34 as the wastewater stream director. What is desired is to direct the wastewater stream

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along the preferred flow path, and any structure that does so can serve as the wastewater stream director.

Please amend the paragraph beginning at page 11 line 8, as follows:

As the wastewater stream exits the flow-directing inlet baffle 34, the heavy waste is carried up the ramp 36 and past the upper edge 38 by the force of the current in the wastewater. At this point, the heavy waste will fall from upper edge of the ramp into the heavy waste removal area 42. The radius of the top edge is useful because it discourages turbulent flow of the liquid passing over the ramp. Turbulent flow is undesirable because it can both carry heavy waste past the heavy waste removal area and erode trapped grease from the surface, if it reaches that area. The present invention contemplates increasing the cross-sectional area and thus slowing the inlet flow stream to reduce the likelihood of turbulent flow in the separation area. This slower flow carries the heavy waste up[;], over and then down the far side of the ramp into the waste removal area. A more acute top edge 38 could lead to undesirable turbulence. Thus the ramp is preferably configured to encourage, as much as possible, over the design flow rates for the specific application, laminar flow up and over the ramp and then through the outlet.

Please amend the paragraph beginning at page 12 line 19, as follows:

It will be appreciated by those skilled in the art that the outlet baffle inlet 48 need not be directly adjacent to the heavy waste removal area 42, nor is it necessary for the preferred flow path to extend directly through the heavy waste removal area 42. However the simplest and most preferred form of the invention allows for the suction created by the wastewater stream entering the outlet baffle inlet 48 to suck the heavy waste into the outlet baffle inlet 48. Less preferred but still feasible is to use mechanical means to push the heavy waste to the outlet baffle inlet 48. This is less preferred because it would be more expensive, more difficult to use

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and more likely to fail. What is important is that the preferred flow path have a combined trajectory and flow rate that permits the heavy waste in the mixed wastewater stream to be directed to the heavy waste removal area 42.